UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,606	04/28/2001	Amir Michaeli	63131	2587

26327   7590   02/20/2004

THE LAW OFFICE OF KIRK D. WILLIAMS
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EXAMINER
BROSS, EDWARD J

ART UNIT	PAPER NUMBER
2126	5

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/845,606	MICHAELI ET AL.
	Examiner	Art Unit
	Edward Bross	2126

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 May 2002_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-28_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-28_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _2_.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-28 are pending in this application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 4, 9-12 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language in the following claims is not understood:

   a.   As to claims 4 and 16, they recite the limitation "the elements". There is insufficient antecedent basis for this limitation in the claim.

   b.   As to claims 9-12, it is unclear whether or not these claims are independent or dependent claims.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Klausmeier

(5,838,915).

6.   As to claims 1 and 13, Klausmeier teaches the invention as claimed including a system

for storing information in a data structure, the system comprising:

        a distributor (624, Fig. 6);

        one or more storage elements for storing a plurality of sub-data structures(622, Fig. 6 and

col. 4, line 25); and

        a receiver (600, Fig. 6);

        wherein the distributor distributes a plurality of items to be added to the data structure to

the plurality of sub-data structures in an order ; and the receiver receives the items from the

plurality of sub-data structures in the order (col. 1, lines 66-67 and col.6, line 33).

7.   As to claims 2 and 14, Klausmeier teaches that each of the sub-data structures includes a

linked-list data structure (col. 2, line 10).

8.   As to claims 3 and 15, Klausmeier teaches a storage for storing a head and a tail of the

linked list data structure of each of the plurality of sub-data structures (704 and 106, Fig. 7).

9.   As to claims 4 and 16, Klausmeier a memory for storing the elements in the data structure

(622, Fig. 7).

10.   As to claims 5 and 17, Klausmeier teaches that the data structure is a linked-list data structure (col. 2, line 9).

11.   As to claims 7 and 19, Klausmeier teaches that the data structure is a queue (col. 2, line 12).

12.   As to claims 6, 8, 18, and 20, they are rejected for the same reasons as claims 2 and 14 above.

13.   As to claims 9-12, they are rejected for the same reasons as claim 1 above.

14.   As to claims 21, 22, 25, and 26, Klausmeier teaches a system for storing information in a data structure, the data structure including a plurality of linked list data structures (col. 2 , line 26), the system comprising:

        a head address storage for storing head information for each of the plurality of linked list data structures (704, Fig. 7);

        a head selector for selecting between said head information (904, Fig. 9);

        a tail address storage for storing tail information for each of the plurality of linked list data structures (706, Fig. 7);

        a tail selector for selecting between said tail list information (917, Fig. 9); and

        a memory for storing a plurality of elements of said information added to the data structure (622, Fig. 7);

wherein the plurality of elements are added to the plurality linked list data structures in an

order and the elements are removed from the plurality of linked list data structures in the order

(col. 1, lines 66-67 and col.6, line 33).

15.   As to claims 22 and 26, Klausmeier also teaches a data structure selector mechanism for

selecting between the plurality of data structures (col. 9, line 45).

16.   As to claims 23, 24, 27, and 28 Klausmeier teaches a method for adding a plurality of

elements to a data structure, the data structure comprising a plurality of sub-data structures, the

method comprising:

(a) receiving information to be added to the data structure ("DATA INPUT", Fig. 6);

(b) adding said received information to a currently selected one of the plurality of sub-

data structures to which to add information (807, Fig. 8);

(c) advancing the currently selected one of the plurality of sub-data structures to which to

add information in an order (812, Fig. 8);

(d) removing information from a currently selected one of the plurality of sub-data

structures to which to remove information (col. 10, line 13);

(e) advancing the currently selected one of the plurality of sub-data structures to which to

remove information to a next one of the plurality of sub-data structures to which to removed

information in the order (col. 10, lines 51-52); and

repeatedly performing steps (a)-(c) to add information to the data structure and steps (d)-

(e) to remove information from the data structure (col. 6, lines 44-45 and col.9, lines 25-26).

17.   As to claims 24 and 28, Klausmeier further teaches a step between steps (a) and (b) as

above:

identifying one of the plurality of data structures to which to add the received information

(col. 7, line 51);

and a step between steps (c) and (d) as above:

identifying one of the plurality of data structures to which to remove a piece of stored

information (904, Fig. 9).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Edward Bross whose telephone number is 305-8754. The

examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on 305-9678. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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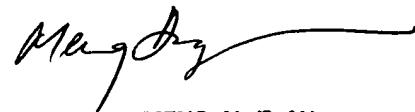
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